



#7

SEQUENCE LISTING

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Sharp, Phillip A.
Pabo, Carl O.

<120> Chimeric DNA-binding proteins

<130> APV-022.02

<140> 08/973,131
<141> 1997-11-26

<150> PCT/US95/16982
<151> 1995-12-29

<150> 08/366,083
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<160> 75

<170> PatentIn Ver. 2.0

<210> 1
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<220>

<223> Description of Artificial Sequence:
oligonucleotide used to determine the consensus
binding sequence of ZFHDL

<400> 1

gtttggcacc tgactaattt aaggag

26

<210> 2
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<223> Description of Artificial Sequence:
oligonucleotide used to determine the consensus
binding sequence of ZFHDL

<400> 2

gcgttaatta agggaggtaa ggccc

25

<210> 3
<211> 25
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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:
oligonucleotide used to determine the consensus
binding sequence of ZFHDL

<400> 3
ctcggccgtt aatgaggggt gttcg 25

<210> 4
<211> 25
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:
oligonucleotide used to determine the consensus
binding sequence of ZFHDL

<400> 4
taattatggg cgggatcgaa tagcc 25

<210> 5
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
oligonucleotide used to determine the consensus
binding sequence of ZFHDL

<400> 5
ggcaataatc aatcctttaa ttatgg 26

<210> 6
<211> 26
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:
oligonucleotide used to determine the consensus
binding sequence of ZFHDL

<400> 6
ggccgtacct catgaaatta ggggcg 26

<210> 7
<211> 25
<212> DNA
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<223> Description of Artificial Sequence:
oligonucleotide used to determine the consensus
binding sequence of ZFHDL

<400> 7
gttaattatg ggtaataat ggtgc 25

<210> 8		
<211> 25		
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<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence:		
oligonucleotide used to determine the consensus		
binding sequence of ZFHDL		
<400> 8		
gtcgggctct gttattatg ggtgg		25
<210> 9		
<211> 25		
<212> DNA		
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<223> Description of Artificial Sequence:		
oligonucleotide used to determine the consensus		
binding sequence of ZFHDL		
<400> 9		
ggataaattac gggtggcatt taggc		25
<210> 10		
<211> 25		
<212> DNA		
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oligonucleotide used to determine the consensus		
binding sequence of ZFHDL		
<400> 10		
gataaaatagg ggcgtcccat cccgt		25
<210> 11		
<211> 24		
<212> DNA		
<213> Artificial Sequence		
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oligonucleotide used to determine the consensus		
binding sequence of ZFHDL		
<400> 11		
taaatttaggg cttaattac ggtc		24
<210> 12		
<211> 25		
<212> DNA		
<213> Artificial Sequence		

<220>
<223> Description of Artificial Sequence:
 oligonucleotide used to determine the consensus
 binding sequence of ZFHDL

<400> 12
tcattagagt gttaatgaga tgcgc

25

<210> 13
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide used to determine the consensus
 binding sequence of ZFHDL

<400> 13
tagttgctaa tttgtattaa tttaaag

26

<210> 14
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide used to determine the consensus
 binding sequence of ZFHDL

<400> 14
agtattataat taagaatgtt aatta

25

<210> 15
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide used to determine the consensus
 binding sequence of ZFHDL

<400> 15
gtgtgataat gagctggtcc gtccc

25

<210> 16
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:
 oligonucleotide used to determine the consensus
 binding sequence of ZFHDL

<400> 16 atattaaggc gtaattcgga caaga	25
<210> 17 <211> 12 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: consensus binding sequence of ZFHD1	
<220> <223> "n" represents a, t, c, g or other	
<400> 17 taattanggg ng	12
<210> 18 <211> 12 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: hybrid DNA site	
<220> <223> "n" represents a, t, c, g or other	
<400> 18 aaatnnntggg cg	12
<210> 19 <211> 12 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: predicted binding sequence	
<220> <223> "n" represents a, t, c, g or other	
<400> 19 cgcccannaa at	12
<210> 20 <211> 10 <212> DNA <213> human	
<400> 20 atgc当地atga	10

<210> 21
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: hybrid binding site

<400> 21
taatgatggg cg 12

<210> 22
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: hybrid binding site

<220>
<223> "n" represents a, t, c, g or other

<400> 22
ggctgagtct gaacggatcc nnnnnnnnnn nnnnnnnnnn nnnnnccctcg agactgagcg 60
tcg 63

<210> 23
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: probe

<400> 23
tcattatggg cg 12

<210> 24
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: probe

<400> 24
cctcgagggtc attatgggcg ctaggtacc 29

<210> 25
<211> 29
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: probe

<400> 25
cctcgaggcg cccatcatta ctaggtacc 29

<210> 26
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: probe

<400> 26
cctcgaggcg cccacgccta ggtacc 26

<210> 27
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: probe

<400> 27
cctcgaggtc atttgatac taggtacc 28

<210> 28
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA fragment

<400> 28
ggtaccagta tgcaaatgac tgcagtatgc aaatgacctc gag 43

<210> 29
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA fragment

<400> 29
ggtaccaggc gtggcgctg caggcgtggg cgcctcgag 39

<210> 30
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA fragment

<400> 30
 ggtaccagta atgatggcg ctgcagtaat gatggcgcc tcgag 45

<210> 31
 <211> 18
 <212> PRT
 <213> human

<400> 31
 Asn Phe Leu Gln Leu Pro Gln Gln Thr Gln Gly Ala Leu Leu Thr Ser
 1 5 10 15
 Gln Pro

<210> 32
 <211> 6
 <212> PRT
 <213> human

<400> 32
 Ser Tyr Gly Gln Gln Ser
 1 5

<210> 33
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: encoded
 epitope

<400> 33
 Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
 1 5

<210> 34
 <211> 306
 <212> DNA
 <213> human

<400> 34
 ctggggcct tgcttggcaa cagcacagac ccagctgtgt tcacagacct ggcattcgtc 60
 gacaactccg agtttcagca gctgctgaac caggcatac ctgtggcccc ccacacaact 120
 gagcccatgc ttagtgagta ccctgaggct ataactcgcc tagtgacagg ggcccagagg 180
 cccccccgacc cagctcctgc tccactgggg gccccggggc tccccaatgg cctccttca 240
 ggagatgaag acttctcctc cattgcggac atggacttct cagccctgct gagtcagatc 300
 agctcc 306

<210> 35
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA fragment

<400> 35
ctagctaatg atggcgctc gagtaatgat gggcggtcga ctaatgatgg gcgctcgagt 60
aatgatggc gt 72

<210> 36
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 36
atgctctaga gaacgccccat atgcttgccc t 31

<210> 37
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 37
atgcgcggcc gccgcctgtg tgggtgcgga tgtg 34

<210> 38
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 38
atgcgcggcc gcaggaggaa gaaacgcacc agc 33

<210> 39
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 39
gcatggatcc gattcaacta gtgttgcattc tttttcttt ctggcgccg 49

<210> 40
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 40
tcagtctaga ggagtgcagg tggaaaccat 30

<210> 41
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 41
tcagggatcc tcaataacta gttccagtt ttagaagctc 40

<210> 42
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 42
actgtctaga gtcagcctgg gggacgag 28

<210> 43
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 43
gcatggatcc gattcaacta gtcccacccgt actcgtaat tcc 43

<210> 44
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 44
atgctctaga ctggggcct tgcttggcaa c 31

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<210> 45
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 45
gcatggatcc gctcaactag tggagctgat ctgactcag 39

<210> 46
<211> 125
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA construct

<220>
<221> CDS
<222> (12)..(116)

<400> 46
ccgcggccac c atg ctc gac cct aag aag aag aga aag gta ctc gag ggc 50
    Met Leu Asp Pro Lys Lys Arg Lys Val Leu Glu Gly
        1           5                   10

gtg cag gtg gag ctt cta aaa ctg gaa gtc gac tat ccg tac gac gta 98
Val Gln Val Glu Leu Leu Lys Leu Glu Val Asp Tyr Pro Tyr Asp Val
    15          20                  25

cca gac tac gca ctc gac taagaattc 125
Pro Asp Tyr Ala Leu Asp
    30          35

<210> 47
<211> 35
<212> PRT
<213> Artificial Sequence

<400> 47
Met Leu Asp Pro Lys Lys Lys Arg Lys Val Leu Glu Gly Val Gln Val
    1           5           10           15

Glu Leu Leu Lys Leu Glu Val Asp Tyr Pro Tyr Asp Val Pro Asp Tyr
    20          25           30

Ala Leu Asp
    35

<210> 48
<211> 32
<212> DNA
<213> human

<220>
<221> CDS

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<222> (6)..(32)

<400> 48

cgagt ctc gag ctt gga acc gga cct gcc gcc
 Leu Glu Leu Gly Thr Gly Pro Ala Ala
 1 5

32

<210> 49

<211> 9
 <212> PRT
 <213> human

<400> 49

Leu Glu Leu Gly Thr Gly Pro Ala Ala
 1 5

<210> 50

<211> 32
 <212> DNA
 <213> human

<220>

<221> CDS
 <222> (6)..(32)

<400> 50

cgagt ctc gag gtg agc gag gag ctg atc cga
 Leu Glu Val Ser Glu Glu Leu Ile Arg
 1 5

32

<210> 51

<211> 9
 <212> PRT
 <213> human

<400> 51

Leu Glu Val Ser Glu Glu Leu Ile Arg
 1 5

<210> 52

<211> 32
 <212> DNA
 <213> human

<220>

<221> CDS
 <222> (6)..(32)

<400> 52

cgagt ctc gag gag atg tgg cat gaa ggc ctg
 Leu Glu Glu Met Trp His Glu Gly Leu
 1 5

32

<210> 53

<211> 9
 <212> PRT

<213> human

<400> 53

Leu Glu Glu Met Trp His Glu Gly Leu
1 5

<210> 54

<211> 32

<212> DNA

<213> human

<220>

<221> CDS

<222> (1)..(27)

<400> 54

att ggc tgg tgc cct ttc tgg gtc gac cgagt
Ile Gly Trp Cys Pro Phe Trp Val Asp
1 5

32

<210> 55

<211> 9

<212> PRT

<213> human

<400> 55

Ile Gly Trp Cys Pro Phe Trp Val Asp
1 5

<210> 56

<211> 32

<212> DNA

<213> human

<220>

<221> CDS

<222> (1)..(27)

<400> 56

ttg gct gtg cca gga aca tat gtc gac cgagt
Leu Ala Val Pro Gly Thr Tyr Val Asp
1 5

32

<210> 57

<211> 9

<212> PRT

<213> human

<400> 57

Leu Ala Val Pro Gly Thr Tyr Val Asp
1 5

<210> 58

<211> 32

<212> DNA

<213> human

<220>
<221> CDS
<222> (1)..(27)

<400> 58
ttc cga cga atc tca aag cag gtc gac cgagt
Phe Arg Arg Ile Ser Lys Gln Val Asp
1 5

32

<210> 59
<211> 9
<212> PRT
<213> human

<400> 59
Phe Arg Arg Ile Ser Lys Gln Val Asp
1 5

<210> 60
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA construct

<220>
<221> CDS
<222> (6)..(29)

<400> 60
cgaca ctc gag gcc ccc ccg acc gat gtc
Leu Glu Ala Pro Pro Thr Asp Val
1 5

29

<210> 61
<211> 8
<212> PRT
<213> Artificial Sequence

<400> 61
Leu Glu Ala Pro Pro Thr Asp Val
1 5

<210> 62
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA construct

<220>
<221> CDS
<222> (1)..(21)

<400> 62
 gac gag tac ggt ggg gtc gac tgc
 Asp Glu Tyr Gly Gly Val Asp
 1 5

26

<210> 63
<211> 7
<212> PRT
<213> Artificial Sequence

<400> 63
 Asp Glu Tyr Gly Gly Val Asp
 1 5

<210> 64
<211> 161
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA construct

<220>
<221> CDS
<222> (12)...(152)

<400> 64
 ccgcggccac c atg ctc gac cct aag aag aag aga aag gta ctc gag gag 50
 Met Leu Asp Pro Lys Lys Lys Arg Lys Val Leu Glu Glu
 1 5 10

atg tgg cat gaa cga atc tca aag cag gtc gag gcc ccc ccg acc gat 98
 Met Trp His Glu Arg Ile Ser Lys Gln Val Glu Ala Pro Pro Thr Asp
 15 20 25

gac gag tac ggt ggg gtc gac tat ccg tac gac gta cca gac tac gca 146
 Asp Glu Tyr Gly Gly Val Asp Tyr Pro Asp Val Pro Asp Tyr Ala
 30 35 40 45

ctc gac taagaattc 161
 Leu Asp

<210> 65
<211> 47
<212> PRT
<213> Artificial Sequence

<400> 65
 Met Leu Asp Pro Lys Lys Lys Arg Lys Val Leu Glu Glu Met Trp His
 1 5 10 15

Glu Arg Ile Ser Lys Gln Val Glu Ala Pro Pro Thr Asp Asp Glu Tyr
 20 25 30

Gly Gly Val Asp Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Leu Asp
 35 40 45

<210> 66
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 66
tcagtctaga tgtaacatat gccagaaaac cttc 34

<210> 67
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 67
tcagtctaga tgcaaggagt gtggaaaaac cttt 34

<210> 68
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 68
tcagtctaga tgtcatgagt gtggaaaac cttt 34

<210> 69
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 69
tcagggatcc tcaataacta gtagccagtt tgtcttggtg gtgata 46

<210> 70
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 70
tcagtctaga cataagaaaag tcctctctag 30

<210> 71

<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 71
tcagggatcc tctatatcaa ctagtaggct tctcaccaag atgg 44

<210> 72
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 72
tcagggatcc tctatatcaa ctagtgggct cctctgtact gtg 43

<210> 73
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 73
tcagtctaga ggccggagcc tgctggagt 29

<210> 74
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer

<400> 74
tcagggatcc tcaataacta gtgtaggatt tgaggaggga a 41

<210> 75
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: chimeric motif

<400> 75
Arg Thr His Thr Gly Gly Gly Arg Arg Arg Lys Lys Arg Thr
1 5 10